

Listing of Claims

1. (Currently Amended) A method for the presentation of information concerning variations of the arterial filling with blood (~~perfusion~~) of organs of living beings on the user surface (~~(10)~~) of a display unit, in which method the data required for the presentation (~~(perfusion index)~~) is determined, using an algorithm, from measuring values produced by a non-invasive photometric measuring process for determining the arterial oxygen saturation of the blood, ~~characterized in that~~ wherein a first perfusion index is defined as a reference value and the subsequent perfusion indices are determined as relative deviations with respect to the reference value, said relative deviations being presented as information concerning the variations of the perfusion on the user surface (~~(10)~~).
2. (Currently Amended) A method as claimed in claim 1, ~~characterized in that~~ wherein the determination of the reference value takes place automatically at the beginning of the photometric measuring process.
3. (Currently Amended) A method as claimed in claim 1, ~~characterized in that~~ wherein the instant of determination of the reference value can be chosen at will.
4. (Currently Amended) A method as claimed in ~~the~~ claims 1 ~~to 3~~, ~~characterized in that~~ wherein the reference value is stored on a memory chip.
5. (Currently Amended) A method as claimed in ~~one of the preceding claims~~ 1, ~~characterized in that~~ wherein the reference value as well as the subsequent perfusion indices are scaled by a factor.
6. (Currently Amended) A method as claimed in claim 5, ~~characterized in that~~ wherein the factor is adjustable.
7. (Currently Amended) A method as claimed in ~~one of the preceding claims~~ 1, ~~characterized in that~~ wherein the variation of the perfusion is presented in numerical form.

8. (Currently Amended) A method as claimed in ~~one of the preceding claims~~¹, ~~characterized in that~~ wherein analog graphic elements ~~(42, 44)~~ are used for the presentation.

9. (Currently Amended) A method as claimed in claim 8, ~~characterized in that~~ wherein bar elements ~~(42, 44)~~ are used as the graphic elements.

10. (Currently Amended) A method as claimed in claim 9, ~~characterized in that~~ wherein the relative variations of the perfusion are represented by different bar lengths.

11. (Currently Amended) A method as claimed in claim 8, ~~characterized in that~~ wherein a representation in conformity with a tachometer display is used as the graphic element.

12. (Currently Amended) A method as claimed in claim 8, ~~characterized in that~~ wherein the display is formed as a multidimensional type in conjunction with other physiological variables, notably as a spider diagram.

13. (Currently Amended) A method as claimed in ~~one of the preceding claims~~¹, ~~characterized in that~~ wherein an upper alarm limit and a lower alarm limit are provided.

14. (Currently Amended) A method as claimed in claim 13, ~~characterized in that~~ wherein the alarm limit is adjustable.

15. (Currently Amended) A method as claimed in ~~the claims 13 and 14~~, ~~characterized in that~~ wherein an acoustic and/or optical alarm signal is triggered when the alarm limit is exceeded.

16. (Cancelled)

17. (Currently Amended) A method of determining the quality of the measuring values (~~signal quality~~) derived by means of a photometric measuring process, ~~characterized in that wherein~~ the signal quality is determined by the modulation factor (AC/DC) of one or more wavelengths in combination with one or more of the following variables:

- saturation-independent perfusion index
- transmission factor
- extent of ambient disturbances, such as stray light, EM radiation, and the like
- shape of the PLETH signal
- strength and/or duration of artifacts.

18. (Currently Amended) A method of presenting the quality of the measuring values (signal quality) derived by means of the photometric measuring process, notably as claimed in claim 16 or 17, ~~characterized in that wherein~~ this information is graphically presented on the user surface (10) by way of different coloring of icons and/or background areas, ~~notably in green for everything o.k., yellow for dubious quality and red for a poor quality, the coloring depending on said quality.~~

19. (Currently Amended) A method as claimed in claim 18, ~~characterized in that wherein~~ the icons are identical to the graphic elements (42, 44) used for the presentation of the perfusion.

20. (Currently Amended) A method as claimed in claim 18 or 19, ~~characterized in that wherein~~ the icons are independent graphic elements (52), ~~notably segment-like or bar-like presentations, color encoded surface elements or circular elements arranged in the form of a traffic light.~~

21. (Currently Amended) A device ~~for carrying out the method~~, comprising a pulsoximeter for determining ~~the~~ arterial O₂ saturation and for calculating ~~the~~ perfusion index in order to determine ~~the~~ information concerning ~~the~~ variation of the perfusion, means for ~~the~~ detection of interference signals, ~~notably motion artifacts~~, and for estimating the quality of the measuring values acquired and ~~hence~~ the information concerning a variation of the perfusion, and means for presenting the information.